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[Continued on next page]

(54) Title: ISOLATED HUMAN TRANSPORTER PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS, AND USES THEREOF

1 ATGCTCTTCCA AGAAGAATAG AAAGCGGTTG AACCAAGGG CGGAAATGG  
51 TTGCTCTTGG CCGCTCTGCT CTGCTCTTGG TGCGGAGGCA CGGGCTCTTT  
101 CTGCTGATTC AGACTTGGCG GCAACCTCGG GGACTCTGAC GTTGACCAAC  
151 TTATTTAGAAA AGGATGACAA AATTCCTAAA ACATTCTGAA ATTCTCTTAT  
201 TCACTCTTGA CTAACACATA TGAAGTCTGC AAATATATGT ATAGGTGAC  
251 CAGTGTGTCT TACTAGTTTG AACCGAAGCG AGAGGTGTGA TACAGGCTGG  
301 CTTATGCGG GATTTGGGCG AGCGCAAGCT GCGCTGAGTG AATGCGCACA  
351 GAATAATGTT GGTGTGAGCG CTGGTGAATG CATCCAGTTC CAGGCTCTTG  
401 TGGGTGCTGT GCTACAGGCT GAGGAAATGG ATGTGCGACT CAGTGACAAA  
451 GATATGGAAA TTAATGAAGA AGAAGTGAAT GGTGTGATTC TGAGAAACT  
501 AGATGGCAAG ATTGTTTTAC CAGGCAACTT TCTGTATTGT ACATTCTATG  
551 GAGGACCGTA CAGCTGCAA GTATTGCGAG TGAAGGCGGC AGATGGCATG  
601 ATATTGGGAG GCGCTCAGAG TGACTCTGAC ACTGATGCGC AAGAATGCG  
651 CTTTGAACAG TCCAGCTGCG AACCGATGAG CCGTGAATGA TCGTACAGC  
701 TAAAGCAGT TCACTGCGAG AACCGCAGG TCCCAACATC AAGAATGACT  
751 CTTTATAAAC CAATTGATGA CAGATTACA AATAAGGCCA GTGATGTTT  
801 GCTGATGTT ACACAGAGCG CTGAGATGG CAGTGGACTT ATGCTAGAGG  
851 AAGTCAAGCG TCTTAAATGT AATTTTGAAT CTGCGAGAGA AGCAATGAG  
901 CAACCTACTG AAGAAGAGAG ACTGCTAAG TTGAGCATAG GAGCAAAAGT  
951 CAATCTGAT ACTTTTTATT TTTTCTTTC AACCAACA GAATTTTAT  
1001 CAGAGATGA TAABAATGA AAGAGCGAG ACAAGCAAT TCAAGTAACT  
1051 TATGACATGA TACAGGATTT AAGTACCGAG CTGAGGAAA TTAGAGAAAT  
1101 AATTGATTTG CCGCTCAAC AGCGTGAAGT TTTCAAGTGT TATGAAATTC  
1151 CTGCGCTAG AGGAGTGTA CTTTATGCTG CTGAGGTAC TGGAAAAACA  
1201 ATGATGGCCA GCGCTGTGTC TAATGAAGTT GGAGGCTATG TTTCTGTAAT  
1251 TAAATGTTCT GAATATATA GCAATTTCTA TGTTGAGACT GAAGCAAGT  
1301 TAAGTCAGAT ATTGCTGAAA GCACTCTTAC GACAGCCATC AATTATTTT  
1351 ATTGATGAGC TGATGCACT TTTGCGGAAA AAGAGGCGG CCGAGAAATGA  
1401 AGTGGGAAA AGATTTGTTG CTTCAGCTTC AACACTGATG GATGCGATTG  
1451 GTTCAAGAGT AAGTGAAGCA CAGGTGTTG TTTCTGGGCG CACAATGCG  
1501 CTTGATGCT TGATGCTGCT TCTGCGAGA CTTGCGGAGT TTTGATGAGT  
1551 GATGAGATT GGAGTTCGCA ATGCTGAGA CCGGCTAGAT ATTCTGAGA  
1601 AACTGCTTGG AAGGGTACCG CATTTGCTCA CTGAGGCTGA CCGCTGCGAG  
1651 CTGCGAATA GTGCTCATGG ATAGCTTGA GACAGCTTGA AAGCTTTGTT  
1701 TAATGAAGCA GGTCTCTGTT CTTTGGGAG AATCTGAAA AACAGGCTA  
1751 ACCTCTGCTA TGTGAGGTTG CCGTCACTGG TGAAGATTAC TCTGAAGAT  
1801 TCTTTGCGTA TCGATTATTT TCTTTGATCA ACTGAGTGG TTAGAGGAT  
1851 AATTGATGTC CCAATGTAT CCGTGTGAGA TATAGGAGGA CTGGAAGTA  
1901 TCAAGCTGAA GTTGAACAG CCGTGTGATG GCGCTTAAA ACATGAGAG  
1951 TCTTTGATTC GAATGGGAT TCAAGCACTT AAAGGAGTTC TTTCTATGG  
2001 GCGAGCTGGG TGTCTAATA CAATGATAGC AAAGGCTTTG GCGAATGAGA  
2051 GTGAGCTGAA TTTTCTAGCT ATAAAGGCGC CTGAATTAAAT GAATTAATAT  
2101 GTTGTGTAAT CTGAAGAGCG AGTTAGAGAG ACCTTCTGAA AAGCAAGAGC  
2151 AGTGGGCGCT TCGATTATTT TCTTTGATCA ACTGAGTGG TTAGAGGAT  
2201 AAAGGCGGAG TTTTGTAGT CCGTGTGAGA TAGCGGATGG TTTTGTGCT  
2251 CAGCTCTTAA CAGAAATGGA TGCGATTGAA CAGCTAAAGG ATGTTGACT  
2301 TTTGCGAGCT ACTAAGCGTC CAGATAGGAT AGACAAGGCT TTTGTTGGCG  
2351 CTGGAAGAT TGAAGAATC ATCTATGTGC CTTTACCGGA TCGAGCAACA  
2401 AGAAGGAAA TATTTAAGCT CGAGTTTCA CCGATGCGCT TCGATTAATGA  
2451 AGTTGAGCTG GATGACCTCA TCTCTAAGC CAGCGCATAC TCGAGGAGAG  
2501 AGATTGTAAG TGTCTGAGA GAGGAGACTC TTTGCGCTCT GGAAGAAGC  
2551 ATTCAAGGTA ATCTGATGTA GAAAGAGAT TTTGCTGAG CTTGAGGAGC  
2601 TGTGAGAGCT AGAATCTGT AGTCAATGAG AGGTTTTAT GAAGATTATC  
2651 AAGAGAGAG TGCGCTGAT ACACCTTGA (SEQ ID NO:1)

(57) Abstract: The present invention provides amino acid sequences of peptides that are encoded by genes within the human genome, the transporter peptides of the present invention. The present invention specifically provides isolated peptide and nucleic acid molecules, methods of identifying orthologs and paralogs of the transporter peptides, and methods of identifying modulators of the transporter peptides.

The published application is used as the specification in this case.

FEATURES:  
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**Published:**

— *without international search report and to be republished upon receipt of that report*

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**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US03/06670

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : C07K 1/00, 14/00, 16/00, 17/00; C07H 21/04; C12Q 1/68; A01K 67/00; C12P 21/06; C12N 1/20, 15/00,  
US CL : 530/350, 387.1; 536/23.5; 435/6, 69.1, 252.3, 320.1, 471; 800/8

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 530/350, 387.1; 536/23.5; 435/6, 69.1, 252.3, 320.1, 471; 800/8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
MEDLINE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — A	WO 01/54733 A1 (HUMAN GENOME SCIENCES, INC.) 2 August 2001 (2.08.01), especially the Abstract and pages 9-20 (see attached Sequence Comparisons A and B).	1-5, 8-19 ----- 20-23
Y	WO 01/54733 A1 (HUMAN GENOME SCIENCES, INC.) 02 August 2001 (02.08.01), especially pages 9-20.	6, 7
X — Y	Database EST. Accession No. B16477. Adams, MD et al.	4, 5 ----- 8, 9

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

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